

09681007 101701

FIG. 1A

NcoI 10 20 30 KT1 36MER (SEQ
 ID NO: 1)
 GAGCCATGGCCCTCCTCCACGAGTTCGGCCTTCTGG
 *** ||||| ||||| ||||| ||||| |||||
 m g L L H E F G L L E ... <--- upper case are
 WT aa
 278 280 282 284 286 288 <--- codon numbering for
 WT aa
 AGTTGGCAGCCCTCCTCCACGAGTTCGGCCTTCTGG ... (SEQ ID NO: 14)
 959 969 979 TaqPol.seq GenBank
 entry
 Accession No. J04639 (numbering includes 5' non-translated
 region)

FIG. 1B

```

--other strand-- KLENTAQ32 35mer (SEQ ID NO: 3)
HindIII
26 16 ***** 6
GGACTGGCTCTCCGCCAAGGAGTAGTAGCTTCGC
|||||
D W L S A K E *
826 828 830 832
GGACTGGCTCTCCGCCAAGGAGTGATACCACC (SEQ ID NO: 15)
2604 2614 2624
TaqPol.seq

```

FIG. 2

10 20 30
 GAGCCATGGGCTCCTCCACGAGTTCGGCCTCTGG KT1 36MER (SEQ ID NO:
 1)
 *** |||||
 m g L L H E F G L L E ... <-- upper case are
 WT aa
 278 280 282 284 286 288 <-- codon numbering for
 WT aa
 AGTTGGAAGCCCTCCTCCACGAGTTCGGCCTCTGG Tfl.seq(SEQ ID NO: 16)
 GenBank
 1387 1397 1407 entry Accession number
 X66105
 region)
 (numbering includes 5' non-translated
 region)
 26 16 6
 GGACTGGCTCTCCGCCAAGGAGTAGTAAGCTTCGC --other strand--
 |||||
 D W L S A K E * KLENTAQ32 35mer
 826 828 830
 GGACTGGCTCTCCGCCAAGGAGTAGGGGGTCTG Tfl.seq (SEQ ID NO:
 17)
 3032 3042 3052

FIG. 3

2 min. at indicated 99°, 98° or 97°, 10 min. 65° per cycle, 20 cycles.

AmpliTaq KlenTaq1
 99° .8 .4 .2 1/4 1/8 1/16 <-- ul per 100 ul reaction.



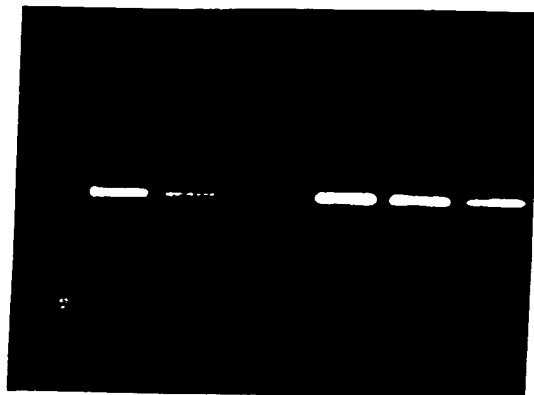
<-- 2 KB product size

AmpliTaq KlenTaq1
 98° .8 .4 .2 1/4 1/8 1/16 <-- ul per 100 ul reaction.



<-- 2 KB product size

AmpliTaq KlenTaq1
 97° .8 .4 .2 1/4 1/8 1/16 <-- ul per 100 ul reaction.



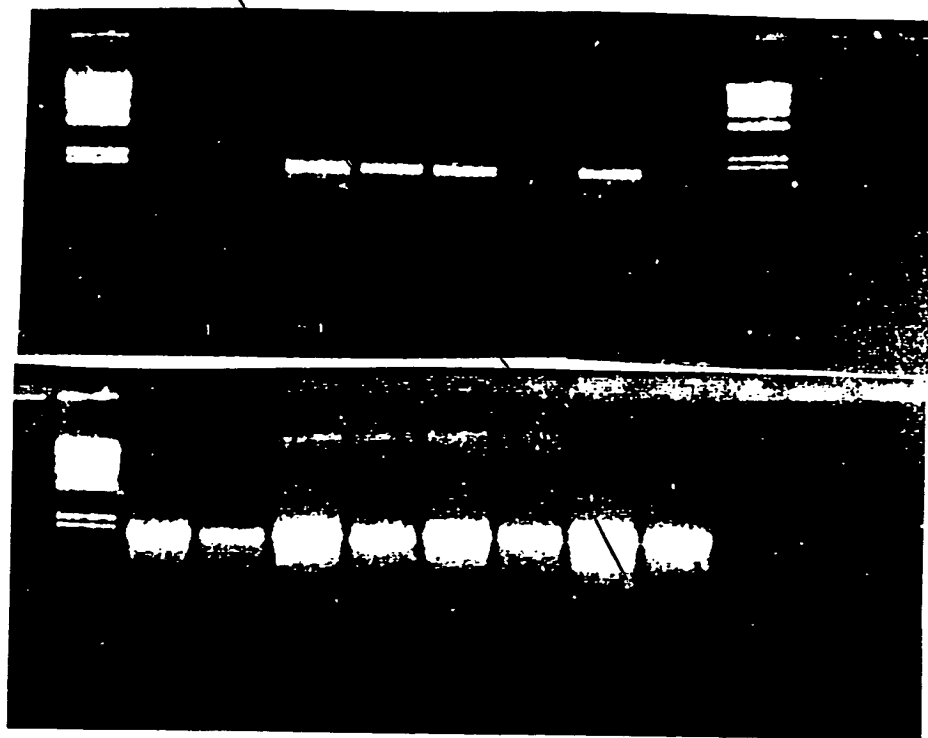
<-- 2 KB product size

0591001-10101850

FIG. 4

Top, figure 4A: 2 min. 98° C, 10 min. 65° C, 20 cycles
 Bottom, figure 4B: 2 min. 95° C, 10 min. 65° C, 20 cycles

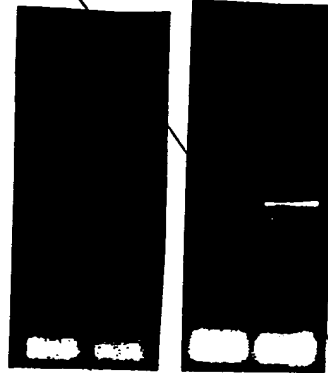
| | | | | | |
|-----|---------|---------|-------|---------|-----|
| λH3 | AT | KT-278 | ST | KT-291 | λH3 |
| std | | | | | std |
| | 3/4 3/8 | 1/4 1/8 | 3 1.5 | 1/4 1/8 | |



FOUO "20078660"

FIG. 5

| PCR peak 2: | 95° | 98° |
|---------------|-----------|-----------|
| Pretreatment: | 100° none | 100° none |
| Lane: | 1 2 | 3 4 |



1A
FIG. 6A

0981000-102001

72°

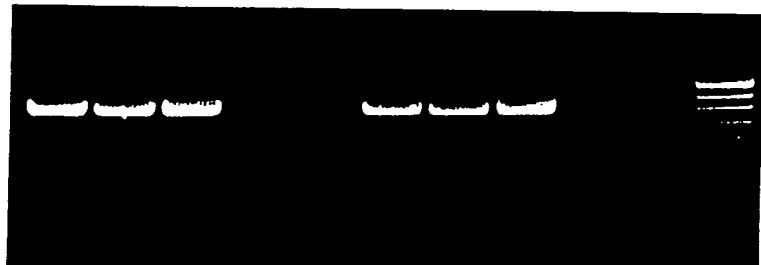
20 cycles of 2 min. 94°, 2 min. 60°, 7 min.

ul of KlenTaq-278
λH3

ul of Pfu DNA Pol

| | | | | | | | | | |
|-----|-----|-----|---|-----|-----|-----|-----|---|---|
| 1 | 1 | 1 | 1 | 0 | 2 | 2 | 2 | 2 | 0 |
| 1/2 | 1/4 | 1/8 | 0 | 1/2 | 1/2 | 1/4 | 1/8 | 0 | 1 |

6.6 KB -->



New Art

Prior
Art

New Art

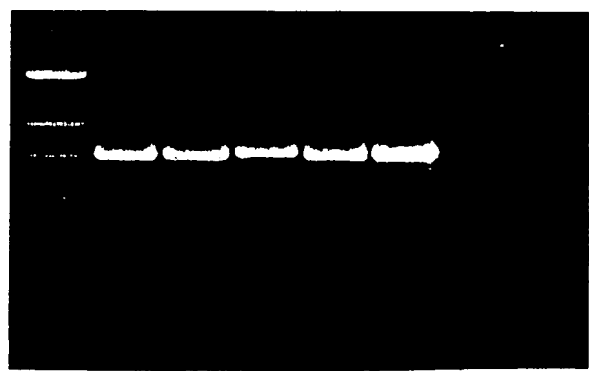
Prior
Art

2/7
7/8

1B
FIG. 6B

20 cycles of 2 min. 94°, 2 min. 60°, 10 min. 72°

| | | | | | | | |
|-------------------|-----|-----|-----|------|------|---|-----|
| ul of KlenTaq-278 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| ul of Pfu DNA Pol | 1/2 | 1/4 | 1/8 | 1/16 | 1/32 | 0 | 1/2 |

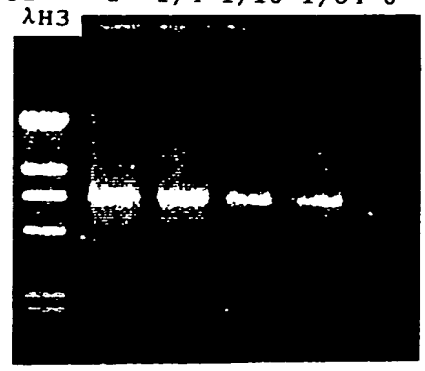


<--6.6KB

1C
FIG. 6C

20 cycles of 2 min. 95°, 1 min. 60°, 30 min. 72°

| | | | | | |
|-------------------|---|-----|------|------|---|
| ul of KlenTaq-278 | 1 | 1 | 1 | 1 | 1 |
| ul of Pfu DNA Pol | 1 | 1/4 | 1/16 | 1/64 | 0 |



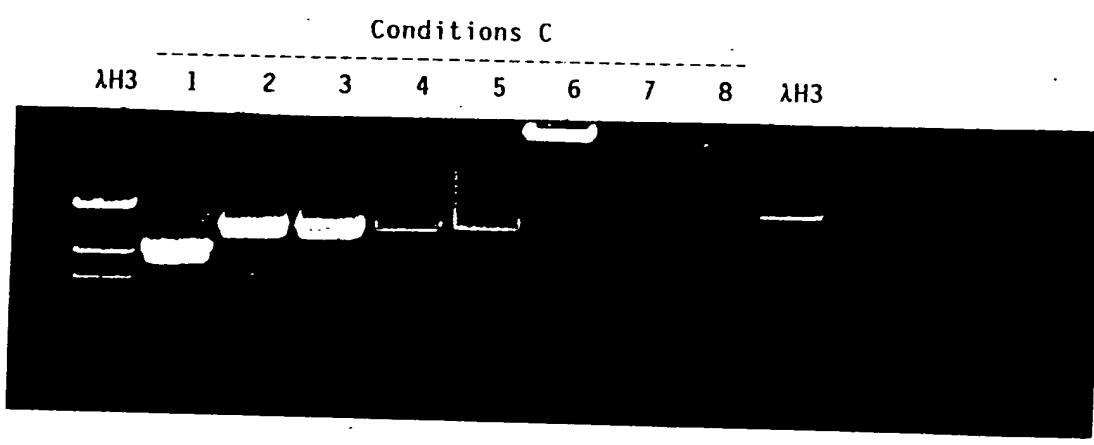
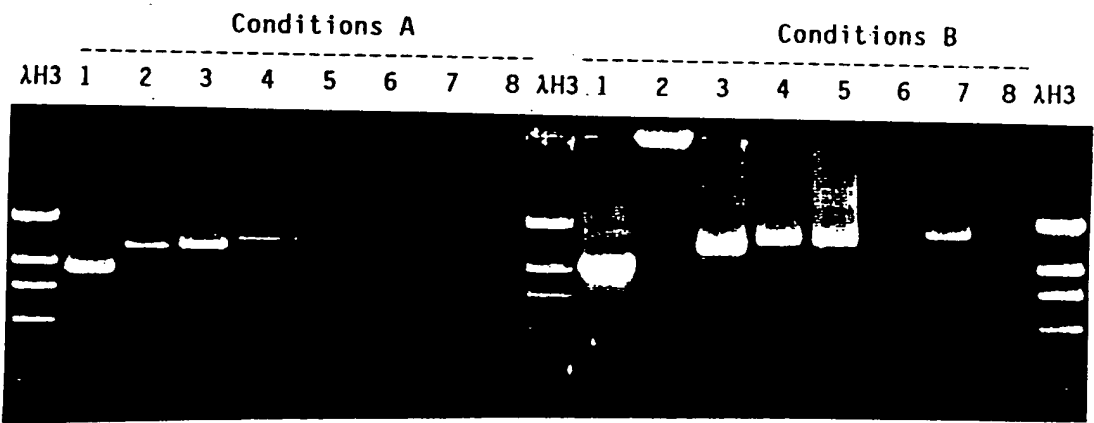
<--6.6KB

FOOT-20018660

3/7
8/8

2
FIG. 7

| | | | | | | | | |
|---------------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|
| Channel: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Template DNA: | λ plac5 | λ pcytI | λ pcytI | λ plac5 | λ plac5 | λ K138 | λ K138 | λ K138 |
| ng of template: | 1 | 1 | 10 | 1 | 10 | 1 | 10 | 10 |
| primer 1 SEQ ID NO: | 9 | 7 | 7 | 10 | 10 | 7 | 7 | 9 |
| primer 2 SEQ ID NO: | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Size of PCR product | | | | | | | | |
| Expected, in kb: | 8.4 | 12.5 | 12.5 | 15 | 15 | 18 | 18 | 19.7 |



0991002-10101